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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/772,756	01/30/2001	Mohammed Nafie	TI-31308	9448
23494	7590	12/07/2004	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED			DEPPE, BETSY LEE	
P O BOX 655474, M/S 3999			ART UNIT	
DALLAS, TX 75265			PAPER NUMBER	
			2637	

DATE MAILED: 12/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/772,756

Applicant(s)

NAFIE ET AL.

Examiner

Betsy L. Deppe

Art Unit

2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,12,14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,12,14 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1 and 4 have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant's arguments filed September 14, 2004 have been fully considered but they are not persuasive. The amendment of claim 12 does not render it distinguishable from Roberts as explained in the subsequent rejection.
3. The objection to the drawings is withdrawn.

Claim Objections

4. Claims 1 and 14 are objected to because of the following informalities:
on lines 9, 10 and 11 of claim 1, "narrowband packets" should be "narrow band packets" in order to be consistent with lines 5-6;
in claim 14, line 3, "radio" should be inserted after "narrow band" (see claim 12, line 3; and
in claim 14, line 4, "section" should be inserted after "wide band radio" (see claim 12, line 2.
Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Widdowson (WO 99/38270). Figure 10 of Widdowson discloses the claimed invention including receiving data packets comprising wideband packets and narrowband packets; identifying the one or more narrowband packets; subtracting the narrowband packets (40) and decoding the received data packets after the one or more narrowband packets have been subtracted (21, 18 and 19). (See page 9, line 16-29) It is implicit/inherent that the narrowband packets must be identified before they can be subtracted from the received data packets.

7. Claim 12 is rejected under 35 U.S.C. 102(e) as being anticipated by Roberts (US Patent No. 6,577,670 B1 cited in the Office Action mailed July 9, 2004). Figures 1 and 2 disclose the claimed invention including a wideband radio section 10) and a narrow band radio section (20). (See also column 2, line 31 - column 3, line 64 and column 4, lines 43-47)

Claim Rejections - 35 USC § 103

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Widdowson as applied to claim 1 above, and further in view of Roberts. Widdowson discloses the claimed invention except that the narrowband radio unit comprises Bluetooth systems and that the narrow band signals are Bluetooth signals.

Roberts discloses that Bluetooth systems transmits narrowband signals that interfere with wider bandwidth devices and signals. (See column 1, lines 29-35 and column 2, lines 40-44) Since Bluetooth signals are also narrowband signals, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the method disclosed by Widdowson to a communication system that is comprised of Bluetooth systems in order to remove all narrowband signal interference to accurately recover the transmitted wideband signal. The type or source of narrowband signal does not affect the functionality of the method and apparatus disclosed by Widdowson.

10. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts as applied to claim 12 above, and further in view of Widdowson. Roberts discloses the claimed invention including receiving a packets comprising both at least

one desired wide band packet and one or more Bluetooth packets. However, Roberts does not disclose that the narrow band radio section decodes the one or more Bluetooth packet and the wideband radio section subtracts the decoded Bluetooth packets from the received data packet before decoding the received data packet.

Figures 10 and 11 of Widdowson teaches decoding the narrow band packets and subtracting the decoded Bluetooth packets from the received data packet (40) before decoding the received data packet (21, 18, 19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Widdowson in the circuit disclosed by Roberts in order to avoid the requirement of filters with very sharp cut-offs to attenuate the narrowband signal. (See Widdowson, page 2, lines 11-14)


Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Widdowson (US Patent No. 6,807,222 B1) is the US Patent corresponding to Widdowson (WO 99/38270).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betsy L. Deppe whose telephone number is (571) 272-3054. The examiner can normally be reached on Monday, Wednesday and Thursday (8:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272 - 2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Betsy L. Deppe
Primary Examiner
Art Unit 2637